

**ABSTRACT**

An optical receiver module is disclosed with a top open can (TO-Can) structure that includes a stem with holes thereon. The holes pass through both sides of the stem. A photo diode mounted on an upper side of the stem, for converting an optical input signal into an electric current. The optical receiver module includes a trans-impedance amplifier, mounted on the upper side of the stem, converts the electric current output from the photo diode into RF signals having opposite phases, amplifies the converted RF signals, and outputs the amplified RF signals to the outside via corresponding output terminals. Signal leads, passing through the holes formed on the stem, output the RF signals having the opposite phases amplified by the trans-impedance amplifier to the outside. Ground leads, extending from a lower part of the stem, ground the stem to the outside of the optical receiver module. Waveguides, mounted in a predetermined position on the upper side of the stem, match impedances between the trans-impedance amplifier and the leads. The waveguides conduct the RF signals output from the output terminals of the trans-impedance amplifier to the respective leads via corresponding electric paths.